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# Evidence about the Benefits of CMMI®: What We Already Know and What We Need to Know

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# Participants

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- OASD (NII) Information Assurance Directorate

Terry Rout
- Software Quality Institute, Australia

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- Software Engineering Institute

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- National Research Council, Canada

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# The Results So Far

Credible early evidence about how CMMI based process improvement

- Can result in better process performance and higher quality products
- Several case studies provide compelling quantitative evidence of:
  - Successful process improvement
  - Helpful insights about what it takes to make it happen.

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# What Else is Necessary?

We need to enhance the quantity and quality of such evidence, along with:

- Evidence that results are due to CMMI based processes as opposed to other factors or unintended measurement effects

Case studies are not enough

- We need a much more broadly based sample of organizations
- More attention also needs to be paid to issues of measurement, validation, data quality and analytic methods

And we need actionable guidance for its use in informing business and technical decisions

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# Rules of Engagement

20 minutes per participant

- Including round robin discussion

15 Minutes for questions from audience

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# Four Questions

1. What does "systems engineering" mean to you?

2. What kinds of evidence does the community need about the benefits of software and systems engineering process improvement?
   - Are we missing anything?

3. What else is important to understand and interpret evidence about the impact of process improvement?

4. What kinds of evidence do people need for informing their business and technical decisions?

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